Remarks

Specification

The specification is amended on page 2, line 14 to remove a period at the end of the sentence.

Claim Rejections – 35 USC 112

Claims 2, 7, 8, 9, 10, 12, 14, 16 and 17 are amended to overcome the indefiniteness set forth in the Office Action.

Claim Rejections – 35 USC 102(b)

Claims 1-5, 14, 15, 17-19 and 21 stand rejected as being anticipated by Nix et al (Nix).

Amended claim 1 comprises the features of the originally filed claim 1 and 3.

The Applicant thanks the Examiner for indicating that claim 12 would be allowable if rewritten in independent form. However, in the Applicant's opinion the amended claim 1 comprising the features of the original claim 1 and 3 should also be new and inventive.

The closest prior art of Nix only shows wires which are joined to the circuit board which is located within the guide means for measurement sensors and which is connected to the measurement sensor (column 9, lines 22 to 27).

Especially in the side elevation view according to Figure 4, it will be obvious that the circuit board is only connected with common simple wires which lead to the cable 18 out of the body of the measurement probe.

Applicant's invention, however, comprises printed circuit boards having a fixed layer and a flexible layer, wherein the flexible layer is provided such that it is separated in places from the fixed layer and is in the form of a flexible strip or band. Therefore, irrespective of a large number of measurements, which cause a movement of the measurement probe in the holder, a long lasting connection is achieved which prevents kinking of connection lines and prevents any risk of braking.

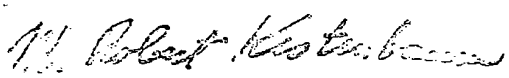
Such a connection as proposed by Nix is old and well-known and contrary to the present invention.

Due to the fact that the flexible strip is not known by Nix, claims 2, 4 and 5 are also not anticipated nor obvious over Nix.

Wherefore further consideration and allowance of the application as amended is respectfully requested.

A two-month extension of time in which to respond to the outstanding Office Action is hereby requested. PTO-2038 is enclosed authorizing credit card payment in the amount of $450 is enclosed for the prescribed Large Entity two-month extension fee.

Respectfully submitted,



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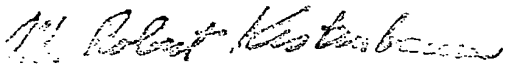
I hereby certify this correspondence is being submitted to Commissioner for Patents, Washington, D.C. 20231 by facsimile transmission on June 7, 2005, fax number (703) 872-9306.



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REPLACEMENT SHEET

connecting points owing to the relative movement of the measurement probe with respect to the holder before and after a measurement is taken. These connecting wires tend to break immediately adjacent to the solder point. The fitting and the repair of the very thin connecting lines are very complex and costly.

Brief Summary of the Invention

[0006] The invention is therefore based on the object of providing an arrangement which allows low-cost production of a measurement probe, in particular as a large-scale-produced item, and which has a long life.

[0007] According to the invention, this object is achieved by an apparatus for measurement of the thickness of thin layers, having a housing which has at least one printed circuit board and at least one sensor element which is associated with the printed circuit board, and having a contact cup which is arranged at the lower end of the housing, characterized in that at least one flexible strip, which has at least one connecting line, is provided on the at least one printed circuit board.[[.]]

[0008] The use of at least one flexible strip which is provided on a printed circuit board and has at least one connecting line. This allows a large number of measurements to be carried out without the at least one connecting line being broken. When measurements are taken, the measurement probe is placed on a test body or sample body. The measurement probe is generally guided in a holder such that it can be moved, for example, against a spring force, so that this ensures contact with the test body or sample body. The flexible connection of the measurement probe to the printed circuit board, for further components via a flexible strip prevents kinking of the connecting lines immediately adjacent to the solder point during the movement of the measurement probe when it has been placed on and lifted off the test body or